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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of

Section 68.4(a) of the
Commission's Rules Hearing Aid-
Compatible Telephones

RM-8658

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

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COMMENTS OF NORTEL

Northern Telecom Inc. ("Nortel") hereby comments on the petition for rulemaking submitted by HEAR-IT NOW requesting that the Commission initiate a rulemaking to modify Section 68.4(a) of the Rules to specify that broadband PCS devices be hearing aid compatible.^{1/} As discussed in greater detail below, while Nortel recognizes the importance of ensuring that hard of hearing individuals are not precluded from using PCS devices, it does not believe that the Commission at this time should initiate a rulemaking as suggested by HEAR-IT NOW. The HEAR-IT NOW petition is premature and underinclusive, and could affirmatively harm the public interest by delaying the deployment of PCS.

Nortel is the second largest telecommunications equipment manufacturer in the United States, supplying systems to businesses, universities, local, state and federal governments, the telecommunications industry, and other institutions

^{1/} RM No. 8658, Report No. 2079, released June 15, 1995.

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worldwide. The company employs more than 22,000 people in the United States in manufacturing plants, research and development centers, and in marketing, sales and service offices across the country. In February 1991, the company established a wireless systems organization that has as its objective the development of new wireless technologies and services to meet marketplace demands throughout the world. In recognition of the growing importance of wireless communications, this group has been made comparable in organizational stature to the company's historical public and private network product line groups.

Nortel has been an active participant in the numerous fora addressing the development of new wireless services, including PCS. As part of its efforts in this area, Nortel has conducted several technical programs evaluating wireless systems and their use by the hearing impaired. In addition, Nortel has supported the Commission's efforts to better understand the needs of the hearing impaired, and the value of wireless systems.

Nortel is active in the University of Oklahoma program to evaluate hearing aid interference and to develop further solutions. Nortel also has its own Hearing Aid Education program in process at the Collier Center for Communication Disorders in Dallas. In addition, Nortel has conducted hearing aid evaluations with hearing aid manufacturers in Canada, and Nortel has participated in CTIA evaluations with hearing aid users.

In Nortel evaluations, all hearing aid users, including behind the ear wearers, have been able to use PCS phones using GSM technology for communication. Nortel has found several phone

use methods and technical design changes that further improve PCS communication for hearing aid users. Ongoing research at the University of Oklahoma and at the Collier Center will most likely find further cost effective solutions that will be useful for the Commission to consider in its future consideration of the continuation of the Section 68.4(a) exemption.

Nortel thus has demonstrated a strong interest in making wireless phones usable by hearing aid users. Nortel is concerned, however, that HEAR-IT NOW's proposal could delay deployment of PCS in the United States, and thereby jeopardize the manifold benefits of these new services.^{2/}

Nortel believes that there are several problems with the HEAR-IT NOW petition for rulemaking. First, Nortel believes that the petition is premature. In addition to Nortel's activities described above, there already are significant efforts underway throughout the industry to study these issues and to find solutions to any potential problems. For example, the wireless industry has committed itself to meet the needs of hearing impaired Americans through a program at the University of Oklahoma being sponsored by CTIA. Likewise, PCIA has created a task force to address these possible problems.

The University of Oklahoma program is comprehensive. In that program, the industry is working with hearing aid manufacturers, audiologists, and consumer groups in an effort to find more and better solutions for the hard of hearing. Nortel

^{2/} See generally, Amendment of the Commission's Rules to Establish New Personal Communications Services, 8 FCC Rcd 7700 (1993).

urges the Commission to let programs like the one at the University of Oklahoma work to find solutions for the hard of hearing, and avoid a premature rulemaking simply mandating compatibility for PCS devices as suggested by HEAR-IT NOW.

There are potential solutions less drastic (and less costly) than HEAR-IT NOW's proposal that should provide superior communication for most hearing impaired Americans. For example, volume control may bring better communications for most hearing impaired, and providing modular ports for other assist devices could serve the unique needs of individuals with serious hearing loss.

Nortel also thinks that any potential problems will decrease over time. Future interference potential is likely to decline because: (i) digital phone manufacturers are introducing innovations that can potentially eliminate interference for a user; (ii) aid manufacturers are adding more shielding in new aids, in part to sell into foreign markets where more shielding is required; and (iii) new hearing aid consumers overwhelmingly are buying very small, deep in the ear units that are much less prone to interference.

Nortel has concerns with HEAR-IT NOW's petition because it does not adequately consider that recent findings have shown that the problems are dramatically less than those projected in the HEAR-IT NOW petition.^{3/} Likewise, the petition does not appear to fully consider the cost effectiveness of applying the

^{3/} E.g., Letter to Reed Hundt from Ole Lauridsen, dated March 26, 1995.

existing hearing aid compatibility rule to Broadband PCS devices, or the usefulness of that rule to hearing aid users. All of these issues require further study, so that the HEAR-IT NOW petition for rulemaking is premature.

Nortel also believes that the HEAR-IT NOW petition is underinclusive, because it focuses on a single wireless service (PCS), and because it focuses on a single technology (GSM). Hearing impaired Americans will use and come into contact with all commercial mobile radio systems, and not just PCS broadband systems capable of voice transmission and reception as specified in the petition. There is no technical or logical reason to single out PCS from other commercial mobile radio services, or to focus on only one particular modulation technology for PCS.^{4/}

To the extent that the identified problem is with digital radio communications, two different digital commercial wireless systems are already in service today, and expanding rapidly. Other new private and commercial systems will be in service shortly, including satellite systems. Nortel believes that any review should be comprehensive, and any rules ultimately adopted should be applied equally to all commercial wireless services.

Nortel is also concerned because the HEAR-IT NOW petition may even be counterproductive to the goal of helping the hard of hearing. Nortel understands that many of the 28 million

^{4/} Indeed, some groups have challenged the motivation behind HEAR-IT NOW's petition, claiming that it was prompted by marketplace and competitive concerns. See e.g., "Industry Begins Study of Hearing Aid Interference by Digital Mobile Phones," Communications Daily, July 11, 1995 at p. 1.

Americans with hearing difficulties are reluctant to wear hearing aids. Positive publicity, like that which occurred when it was revealed that President Reagan used hearing aids, dramatically increased aid use. Conversely, adverse publicity is likely to decrease new hearing aid use. The HEAR-IT NOW petition may lead many potential users to believe hearing aids will not communicate with new technology, and existing users will need to expend tens of millions of dollars in retrofit costs. The exaggerated claims could thus have a chilling affect upon Americans getting the help they need, and unnecessarily scare existing users.

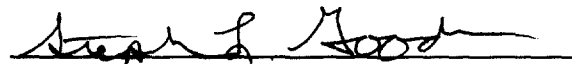
CONCLUSION

Nortel urges the Commission not to initiate a rulemaking based on the HEAR-IT NOW petition. A hearing aid compatibility rulemaking only for Broadband PCS is not needed, or justified, and could disrupt deployment of PCS services. Nortel does not believe that interference by digital wireless devices, including those to be used by PCS, is a major problem, and many products that minimize or eliminate unwanted noise are already coming on the market.

The Commission should encourage the ongoing joint industry efforts to find even more and better solutions for the hard of hearing. Most hearing aid users will find that new wireless services (including PCS) improve their communication world, and for most users interference will not be a problem. Initiating a rule making at this time, especially with some

parties' tendency to publicize exaggerated claims, could cause unnecessary fear for many existing hearing aid users, and would likely dissuade many potential aid purchasers from acquiring the help they need. For all of these reasons, Nortel urges the Commission to deny the HEAR-IT NOW petition for rulemaking.

Respectfully Submitted,



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CERTIFICATE OF SERVICE

I, Katherine H. Rasdorf, hereby certify that on the 17th day of July 1995, a true copy of the foregoing Comments of Northern Telecom Inc. was mailed, postage prepaid, to:

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